

## Exploring Issues in the Deepened Development of Media Convergence in Academic Journals: Post-print

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### Abstract

This paper takes academic journals as its research object to investigate the developmental pathways of media convergence for academic journals. It argues that within the context of media convergence, academic journals, under the powerful impact of new media, have actively developed digital publishing and online dissemination, initially achieving media convergence development, yet still require further expansion of media convergence pathways. The paper proposes strategies for academic journals to deepen digital publishing and online dissemination, conduct institutional innovation, and strengthen the application of new media technologies.

### Full Text

#### Abstract

This paper examines academic journals as its research object to investigate the developmental pathways of media convergence in academic publishing. It argues that under the powerful impact of new media, academic journals have actively developed digital publishing and online communication, initially achieving media convergence, but must further expand these integration pathways. The paper proposes countermeasures for academic journals to deepen digital publishing and online communication, conduct institutional innovation, and strengthen the application of new media technologies.

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As platforms for disseminating knowledge and exchanging academic achievements, academic journals face the challenges of digitalization and networking in the new media era. Achieving transformation toward digital and networked publishing has become an industry consensus. New development opportunities lie in innovation—encompassing publishing methods, communication channels, and management systems. The fundamental pathway for innovative development is scientific integration with new media technologies, particularly digital and network technologies. This integration, known as media convergence, has been extensively studied in rich academic literature.

Xu Chunhui (2009) [3], Sun Yuan, Zhu Xiaohong, and Yu Wei (2009) [4], Ming Hai and Yang Xiaolong (2002) [5], and Xiang Sa (2004) [6] conducted in-depth research on concepts and definitions of publishing digitalization and digital publishing. Zeng Jianxun and Qu Haiyan (2003) [7], Chen Yueting (2005) [8], and Meng Yao (2009) [9] examined concepts and aspects of online publishing in academic journals, offering valuable perspectives. Feng Hong and Zhou Xiaohua (2010) [10] investigated policy measures for accelerating digital publishing in university journals. Although existing research has clarified many issues in digital and online publishing, providing theoretical foundations and policy guidance, numerous media convergence challenges remain unresolved. Zhang Haisheng et al. (2018) constructed an “Academic Journals + Mobile Internet + Services” convergence model, creating real-time interaction mechanisms among authors, readers, and editors, thus offering an approach to accelerate media convergence.

Digital publishing and online communication constitute the fundamental pathways for integrated development between academic journals and new media. How journals utilize new media technologies for digital publishing and online communication, and how they scientifically integrate these technologies with traditional content—achieving scientific media convergence—represents an urgent practical challenge for academic publishing.

## 1. Literature Review

The practice and research of media convergence in academic journals began in the late 20th century. After decades of exploration, numerous achievements have been made across various aspects. The main research findings in academia can be divided into three areas: First, research on the driving forces of media convergence in academic journals. Zhang Haisheng et al. (2018) [1] argue that to ensure rapid dissemination of academic resources and continuously expand influence, academic journals must gain advantages through innovative media convergence development. Li Yazhuo (2018) [2] finds that media convergence is a highly effective technology that can accelerate the dissemination of academic achievements. Due to challenges and competitive pressure from new media, academic journals should accelerate their integration with new media. Second, research on methods of media convergence in academic journals. The pathways

of media convergence have been a key focus for many scholars. Hu Zhengrong (2012) [11], Zheng Yu (2007) [12], Wang Fei (2007) [13], and Dai Yumei (2011) [14] studied trends and methods of media convergence in the publishing industry. Wang Hu (2012) [15] examined talent cultivation mechanisms for new media professionals under media convergence backgrounds. Qin Yan (2011) [16] studied business strategies for traditional media in media convergence. Additionally, some scholars have explored media convergence development from micro-case perspectives. Academia believes that specific methods include digital publishing using digital technology, online editorial management on journal websites, and disseminating journal content via WeChat public accounts, among which digital publishing and online communication are fundamental approaches for integrating academic journals with new media. There is abundant research and rich literature on digitalization and digital publishing transformation. Xu Chunhui (2009) [3], Sun Yuan, Zhu Xiaohong, and Yu Wei (2009) [4], Ming Hai and Yang Xiaolong (2002) [5], and Xiang Sa (2004) [6] conducted in-depth research on concepts and definitions of publishing digitalization and digital publishing. Zeng Jianxun and Qu Haiyan (2003) [7], Chen Yueting (2005) [8], and Meng Yao (2009) [9] conducted in-depth research on concepts and related aspects of online publishing in academic journals, proposing valuable viewpoints. Feng Hong and Zhou Xiaohua (2010) [10] explored policy measures for accelerating digital publishing processes in university academic journals. In summary, existing literature has studied media convergence issues from multiple aspects and angles, providing theoretical analysis and policy guidance. However, research on specific models and pathways for media convergence in academic journals has not been sufficiently deep.

## 2.1 Cooperation with Large Academic Journal Database Publishing Platforms to Achieve Digitalization and Online Publishing

**Fund Project:** Ministry of Education Humanities and Social Sciences Research Planning Fund Project “Network Publishing Mechanism, Evaluation Methods and Government Regulation in Academic Journal Media Convergence” (Project Number: 17YJA860015).

Academic journal digitalization is a common phenomenon and fundamental pathway for the integration of traditional academic journal publishing with new media. Currently, most academic journals have achieved digitalization, with the basic approach being cooperation with large academic journal database publishing platforms. Through these databases, journal content is stored in digital format using digital technology, allowing users to search, download, and read. On large academic journal database publishing platforms, entire journal issues are transformed into individual papers, appearing in the database as single-article units for readers to download. This is the fundamental method of digitalization and online communication for academic journals. Wu Xing (2016) [17] studied the digitalization status of academic journals in Hebei Province,

finding that among 161 academic journals, 152 were included in databases, with 90% being fully included in the four major databases: CNKI, Wanfang Data, Longyuan Journals, and VIP Information. Additionally, other databases or data publishing platforms have included them, such as Chaoxing Fayuan Full-text Database, China Science and Technology Papers Online, 91 Reading Network, and Docin.com. By joining databases, academic journals have only taken the first step toward digitalization. They have enabled query and acquisition of journal content through networks, achieving three-dimensional, digital dissemination of academic papers. In a broader sense, deeper integration of academic journals with new media technology requires digitalization and networking of content resources, editorial processes, communication channels, and management operations under the application of Internet technology.

## 2.2 Utilizing Priority Publishing and Open Access (OA) Methods to Achieve Publishing Convergence

Academic journal priority publishing is a publishing method that has emerged in recent years to promote rapid and timely public dissemination of academic achievements. Based on print journal content, it publishes accepted manuscripts online in digital format before the print version is released. CNKI launched its “Academic Journal Priority Digital Publishing Platform” in 2010, which has prioritized 2,351 journals and cumulatively published over 260,000 papers. The implementation of priority publishing has significantly shortened the publication cycle of academic papers and promoted the public dissemination of academic achievements.

Utilizing the Open Access (OA) publishing model is also an important method of media convergence for academic journals. Through the convenient channels of the Internet, academic journal publishers or academic communities reach agreements with authors to store papers on online publishing platforms, allowing users to freely access literature via the Internet. As long as the papers are used for legitimate purposes, they can be downloaded and read without legal or technical obstacles. Journals published through this method greatly promote the dissemination and utilization of academic achievements and represent the future direction of academic journal development. Foreign studies have shown that academic journals using the open access model can significantly increase citation frequency and expand their social impact.

## 2.3 Establishing Academic Journal Websites to Provide Network Services

While cooperating with large academic journal database publishing platforms, some academic journal publishers with technical and economic strength actively collaborate with developers to independently build their own websites, making the website a technical platform for digital publishing and online publishing of academic journals. This greatly promotes media convergence, digital publishing,

and online communication in academic journals. These websites fall into three categories: independent websites, affiliated websites, and cluster websites.

Among all academic journal websites, the proportion of independent websites is higher for science/technology and medical/health journals, while fewer social science journals have independent websites. Website content generally includes journal news, online editorial management (submission systems), online journals, and journal information. Website technical support primarily comes from network technology companies such as CNKI Editorial System, Beijing Magtech Company, and Beijing Qinyun Technology Co., Ltd. In addition to providing tables of contents for past issues, academic journal websites also promptly release tables of contents for forthcoming issues. Some also provide full-text links. Academic journal websites fully embody the characteristics of media convergence.

#### **2.4 Mobile Reading and New Media Communication via Mobile Terminals such as Smartphones through WeChat, Weibo, etc.**

Beyond website construction, academic journals push information services to users through mobile terminals such as smartphones and tablets, including reading guides, introductions, reviews, and full-text downloads. Utilizing networks and terminal devices for publishing and communication represents the primary and optimal pathway for integration with new media.

Due to the widespread application of network and communication technologies, the habit of reading via mobile terminals has become established, and any online information can be quickly searched and obtained. To adapt to this development trend, academic journal editing and publishing must create content formats more suitable for mobile terminal platforms. Academic journal mobile apps are platforms for readers' mobile reading, representing an extension of print journals to mobile devices and a new form of academic journal development from traditional publishing to new media. Currently, China has a huge number of mobile users, with mobile network users accounting for over 90% of all internet users. The number of internet users reading academic papers via mobile phones is expanding daily, giving academic journal mobile apps distinct advantages and promising development prospects.

### **3. Current Deficiencies in Academic Journal Media Convergence**

Currently, in academic journal media convergence, digital publishing and online communication are relatively common integration methods. These two approaches are the basic pathways for academic journals to publish online and distribute digitally. Their advantages include: First, they have changed the traditional single print distribution method and channel, realizing dual approaches of print journals and online access. Second, they have accelerated the dissemina-

tion of academic content and expanded the social influence of academic journals. Since more readers search for materials and information through online searches, academic journals' online presence facilitates readers' access to published papers, thereby increasing reading rates, citation rates, and influence. However, these two methods also have the following deficiencies:

First, the digital publishing and distribution methods are overly simplistic, failing to fully leverage the advantages of digital publishing and distribution. Digital publishing and distribution represent the inevitable future trend for academic journals, as required by the information society, because this publishing method possesses the timeliness, convenience, efficiency, speed, and personalization needed in an information society—these are precisely the advantages of digital publishing and distribution. Currently, the publishing and distribution methods adopted by university academic journals only partially meet the needs of readers or authors, but cannot satisfy their needs for timeliness, speed, and personalization.

Second, digitizing journal content for website posting or inclusion in large databases only completes part of the digital publishing process, not the entire digital publishing workflow. First, academic journals still use traditional publishing processes in their editorial and publishing workflows. Although this process is indispensable, digital publishing workflows should be more scientific and efficient. The traditional publishing process follows a fixed schedule for each issue, beginning editorial work only when all content for an issue is finalized. This process makes it difficult to publish academic papers in the shortest possible time, extending publication time and greatly reducing timeliness, causing some academic achievements to seek first-publication channels abroad and be published first in foreign academic journals. In fact, with network and digital technologies, academic journals can completely break this issue-based scheduling when publishing excellent papers, because the key to academic paper publication lies in public dissemination, in being announced to society, and in being recognized and cited by others.

Third, it is difficult to establish an independent profit model for academic journal publishers. The overall operational level of China's academic journals is not high, with most operating at a loss. Without financial support from their sponsoring institutions, most academic journals would be difficult to sustain, let alone achieve continuous development. China's academic journal digital publishing industry chain has not yet been established, and digital publishing methods are simplistic. Most academic journals can only digitize their print content and sell it to database operators at extremely low prices, which are then packaged or distributed by the operators, leaving the journals with minimal profits. Therefore, to date, academic journal publishers have not formed an effective profit model. However, establishing a complete digital publishing and distribution system and online publishing platform would provide corresponding technical support for academic journal publishing and distribution, thereby helping to establish a scientific profit model.

## Conclusion and Recommendations

Media convergence in academic journals primarily reflects the application of new media and network technologies in academic journal publishing, with new media communication forms exerting powerful influence on academic journal publishing and communication. China's academic journal media convergence has a specific historical context and cannot simply copy Western media convergence experiences. Instead, it should actively adopt models such as technology convergence, organizational convergence, content sharing, and interactive promotion, while also conducting institutional innovation in combination with China's academic journal management systems and actual conditions.

Online publishing in academic journals is a publishing method adapted to Internet development needs. Due to characteristics such as timeliness, flexibility, and interactivity, academic papers face innovation and development in publication formats, with single-paper publication becoming the future direction for academic paper publication. Currently popular priority publishing and open access journals are both explorations of single-paper publication. Due to their many advantages, they are being recognized and adopted. However, constrained by regulations on whole-issue publication in academic journals, single-paper publication still faces institutional restrictions. To adapt to the needs of online publishing, we should actively explore pathways and models for single-paper publication, and while strengthening management of online journals, conduct corresponding institutional innovation.

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